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Public Service Commission of Wisconsin
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PUBLIC SERVICE COMMISSION OF WISCONSIN

Quadrennial Planning Process II

5-FE-100

**NOTICE OF INVESTIGATION
AND REQUEST FOR COMMENTS**

Comments Due: Friday, August 2, 2013 - 12:00 noon	Address Comments To: Jolene Sheil, Docket Coordinator Public Service Commission P.O. Box 7854 Madison, Wisconsin 53707-7854
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THIS IS AN INVESTIGATION to evaluate all the energy efficiency and renewable resource programs (statewide and utility voluntary programs) and determine their appropriate goals, priorities, and measurable targets. The Commission opens this Quadrennial Planning Process II docket by its authority under Wis. Stat. ch. 196. The Commission intends to conduct this investigation without a hearing.

State law requires the Commission to review energy efficiency and renewable resource programs periodically. The relevant statute, Wis. Stat. § 196.374(3)(b)1., states:

At least every 4 years, after notice and opportunity to be heard, the commission shall, by order, evaluate the energy efficiency and renewable resource programs under sub. (2) (a) 1., (b) 1. and 2., and (c) and ordered programs and set or revise goals, priorities, and measurable targets for the programs. The commission shall give priority to programs that moderate the growth in electric and natural gas demand and usage, facilitate markets and assist market providers to achieve higher levels of energy efficiency, promote energy reliability and adequacy, avoid adverse environmental impacts from the use of energy, and promote rural economic development.

The Commission's decisions in the first Quadrennial Planning Process cover the 2011-2014 period for the statewide energy efficiency and renewable resource program known as Focus on Energy. The decisions in this Quadrennial Planning Process II will be in effect for the 2015-2018 period. Attachment A ([DL: 746299](#)) provides a summary of all the Commission's decisions in Quadrennial Planning Process I. These decisions are reflected in the current

statewide energy efficiency and renewable resource programs. These Focus on Energy programs are currently being administered by Chicago Bridge and Iron.

At various times throughout this investigation, the Commission will seek input to assist its decision-making process. The preliminary timeline for the Quadrennial Planning Process II (QPP II) is as follows:

Activity	Time Period
Notice of Investigation	Comments due August 2, 2013
Commission Decision on Scope of QPP II	September 2013
Staff Prepares Commission Memo for Comment	Winter/Spring 2014
Commission Decisions for QPP II	By July 2014
Program Administrator Plans/Designs Programs based on Commission decisions	July-December 2014
New Focus on Energy Program Period Begins	January 1, 2015

DOCUMENTS. All documents in this docket are filed on the Commission's Electronic Regulatory Filing (ERF) system. To view these documents: (1) go to the Commission's web site at <http://psc.wi.gov>, (2) enter "5-FE-100" in the box labeled "Link Directly to a Case," and (3) select "GO."

COMMENTS. At this time the Commission is seeking comments on the appropriate scope of the Quadrennial Planning Process II. Of particular interest are comments regarding which decisions made in the first quadrennial planning process as set forth in Attachment A should be revisited, as well as any new issues that should be addressed in the Quadrennial Planning Process II.

The Commission is also interested in your comments regarding the following water efficiency issues:

Should water efficiency measures, and their associated energy savings, be incorporated into the Focus on Energy program and addressed in this docket? If yes, which issues should be addressed? Potential issues include:

- a. How should water savings be incorporated into the Focus on Energy program evaluation?
- b. What mechanisms can be used to measure and document energy and peak demand savings attributable to water efficiency improvements or water loss reductions?
 - i. Direct energy savings from water efficiency measures or water loss reductions; and
 - ii. Savings attributable to reductions in energy used to produce water.

- c. What mechanisms can be used to measure and document water savings resulting from energy efficiency improvements?
 - i. Direct water savings associated with energy efficiency measures; and
 - ii. Savings attributable to reductions in water used to produce energy.

Comments are due no later than Friday, August 2, 2013, at 12:00 noon. Any public utility, organization, or interest group may file one scope comment using the Commission's ERF system. To file such a comment, go to the Commission's web site at <http://psc.wi.gov>, and click on the "ERF - Electronic Regulatory Filing" graphic on the side menu bar. On the next page, click on "Need Help?" in the side menu bar for instructions on how to upload a document.

Any member of the public may also file only one scope comment either through the Commission's web site or by mail as follows:

- **Web Comment.** Go to the Commission's web site at <http://psc.wi.gov>, click on the "Public Comments" button on the side menu bar. On the next page select the "File a comment" link that appears for docket number 5-FE-100.
- **Mail Comment.** All comments submitted by U.S. mail shall include the phrase "Docket 5-FE-100 Comments" in the heading, and shall be addressed to:

Docket 5-FE-100 Comments
Public Service Commission
P.O. Box 7854
Madison, WI 53707-7854

The Commission will not accept a comment submitted via e-mail or facsimile (fax).

Any material submitted to the Commission is a public record and may appear on the Commission web site.

INTERVENTION. Any person desiring to become a party shall file a request for party status, known as a request to intervene, under Wis. Stat. § 227.44(2m) and Wis. Admin. Code § PSC 2.21 no later than 14 days from the date of this notice using the ERF system.

To file such a request, go to the Commission's web site at <http://psc.wi.gov>, click on the "ERF - Electronic Regulatory Filing" graphic on the side menu bar. On the next page, click on "Need Help?" for instructions on how to upload a document.

A person desiring to become a party who lacks access to the Internet may make a request to intervene by U.S. mail addressed to:

Docket 5-FE-100 Intervention Request
Public Service Commission of Wisconsin
P.O. Box 7854
Madison, WI 53707-7854

At the time of filing, the person making the request to intervene shall serve a copy of the request on existing parties. An existing party may respond to the request within five days of service. A party wishing to request intervenor compensation should do so as soon as practicable.

WISCONSIN ENVIRONMENTAL POLICY ACT. This is a Type III action under Wis. Admin. Code § PSC 4.10(3). The Commission will review the potential environmental effects of the project. Type III actions normally do not require the preparation of an environmental impact statement under Wis. Stat. § 1.11 or an environmental assessment.

ASSESSMENT. The Commission considers it necessary, in order to carry out its duties, to investigate all books, accounts, practices, and activities of electric and natural gas public utilities. The expenses incurred or to be incurred by the Commission that are reasonably attributable to such an investigation will be assessed against and collected from electric and natural gas public utilities in accordance with the provisions of Wis. Stat. § 196.85 and Wis. Admin. Code ch. PSC 5.

AMERICANS WITH DISABILITIES ACT. The Commission does not discriminate on the basis of disability in the provision of programs, services, or employment. Any person with a disability who needs accommodations to participate in this docket or who needs to obtain this document in a different format should contact the docket coordinator listed below. Any hearing location is accessible to people in wheelchairs. The Public Service Commission Building is accessible to people in wheelchairs through the Whitney Way first floor (lobby) entrance. Parking for people with disabilities is available on the south side of the building.

CONTACT. Please direct questions about this docket or requests for additional accommodations for the disabled to the Commission's docket coordinator, Jolene Sheil, at (608) 266-7375 or Jolene.Sheil@wisconsin.gov.

Dated at Madison, Wisconsin, this 2nd day of July, 2013.

By the Commission:



Sandra J. Paske
Secretary to the Commission

SJP:JS:jlt:DL: 00746254

Attachment A

Attachment A – Quadrennial Planning Process I - Questions and Decisions

Phase 1

Question	Commission Decision	Revised/Updated Decision
<i>1.a. Should energy efficiency and customer-sited renewable resource goals be established based on resource acquisition, contribution to emission reduction targets, or a combination of the two? If a combination, what is the appropriate balance between resource acquisition and emissions reductions? (i.e., what is the appropriate balance between energy and demand savings?)</i>	Energy efficiency and renewable resource goals should be established as reductions in energy use and demand, recognizing that emissions reductions will follow. While both energy and demand goals should be established, there should be greater emphasis on reducing energy use than demand reduction.	
<i>1.b. Should current and potential economic benefits of the programs be a factor in determining the appropriate level of goals? If yes, how should these benefits be considered when establishing the goals?</i>	Energy efficiency and renewable resource goals should be based on resource benefits (avoided generation, transmission, and distribution costs). Non-resource economic benefits (such as economic development, job creation, and improved health and comfort) should be optimized in the program planning and design stage.	
<i>1.c. Should rate impacts be considered in determining the appropriate level of the goals? If yes, how should they be considered? (e.g., a cap on the increase in rates resulting from the energy efficiency and renewable resource spending.)</i>	Rate impacts should be considered in the determination of the appropriate energy efficiency and renewable resource goals. Rate mitigation strategies should be investigated.	
<i>1.d. How should the energy efficiency and renewable resource goals be expressed? (e.g., percent of projected load, reduction in demand and energy use by a certain percent, reduction in tons of CO₂.)</i>	The energy efficiency and renewable resource goals should be expressed as a percentage reduction in future energy use and demand.	The Commission's January 13, 2012 Order (PSC reference # 158228.) requires goals expressed as actual energy and demand savings.

Question	Commission Decision	Revised/Updated Decision
<i>1.e. What is the appropriate planning horizon for the goals?</i>	A four-year planning horizon for goals is appropriate. There should be an annual review to assess progress toward goal achievement.	
<i>2. Should the energy efficiency and renewable resource programs address longer term market changes in addition to short-term goal achievement? If yes, what is the appropriate balance between short-term achievement and longer term market changes?</i>	In addition to short-term quantitative energy savings goals, qualitative targets for long-term market effects over the planning horizon should be established. Program planners should prioritize designs that simultaneously achieve short-term energy savings while targeting longer-term changes.	
<i>3. Should the Commission establish goals in this proceeding for demand response and rates that encourage energy efficiency and on-site renewable energy production?</i>	Goals for demand response and rates that encourage energy efficiency and on-site renewable energy production should not be established in this proceeding.	
<i>4. Should the Commission consider the comparability of supply-side and demand-side availability, reliability, and persistence in determining the optimal mix of resources to meet forecasted demand and emission reduction targets?</i>	Availability, reliability and persistence should be considered when developing programs under Wis. Stat. § 196.374. This is not the appropriate venue to address integration of demand-side and supply-side resources.	

Phase 2 – Evaluation

Question	Commission Decision	Revised/Updated Decision
<p>1. <i>What should be the goals of the energy efficiency and renewable resource program evaluation?</i></p>	<p>The appropriate evaluation goals are to: (1) measure and document the effects attributable to the program; (2) provide data needed to assess cost-effectiveness; and (3) provide ongoing feedback and guidance to the program administrator regarding program design, delivery, and efficiency of operations. Special emphasis is to be placed on: (1) measuring and documenting energy and peak demand savings attributable to the program; (2) documenting whether statutory goals have been met; (3) providing data needed to assess cost-effectiveness; and (4) providing ongoing feedback and guidance to the program administrator. An Evaluation Work Group will be established to advise the Commission on measurement and evaluation issues.</p>	
<p>2. <i>What are the appropriate evaluation metrics?</i></p> <p>A) <i>How should energy “savings” be quantified?</i></p> <p>1) <i>What are the appropriate savings metrics?</i></p>	<p>Net savings are to be used to determine measure and program cost- effectiveness, to inform continual improvement of program design, and for public policy decision making. Gross metrics are appropriate in the context of contract goals.</p>	

Question	Commission Decision	Revised/Updated Decision
2) <i>How should attribution, or net savings, be measured?</i>	The Evaluation Work Group shall develop new guidelines for selecting the appropriate attribution measurement method(s). This work group should also: (a) review the current application of the self-report and market data methods used in other states and recommend changes to provide more confidence in the results of these methods; (b) review the detailed evaluation plans to ensure that they meet the new evaluation framework; and (c) review the methods used to measure the gross savings of the programs and recommend changes.	
3) <i>Should annual first year or life-cycle savings be established?</i>	Life-cycle contract goals are to be established for energy efficiency and renewable resource programs. First year savings will be made available.	
4) <i>How should measure life, degradation, and acceleration be incorporated into the documentation of life-cycle savings?</i>	The current effective useful life and decay rate approach shall be used to document life-cycle savings and accelerated savings shall be incorporated when feasible. The Evaluation Work Group shall consider alternatives to the current approach and recommend modifications.	

Question	Commission Decision	Revised/Updated Decision
<p><i>B) Which cost-effectiveness tests are the most appropriate in the context of program approval, contract achievement, and societal benefits?</i></p>	<p>A modified Total Resource Cost (TRC) test shall be used at the measure and portfolio levels. Results of the Expanded test are to continue to be reported at the portfolio level. A Utility/Administrator test at the program level shall be conducted to inform program design. Measures that do not pass the modified TRC but have substantial non-energy benefits may be considered for program inclusion on a case-by-case basis based on the Expanded test.</p>	
<p><i>C) How should the costs and benefits associated with energy efficiency and renewable resources be quantified?</i></p> <p><i>1) What is the appropriate basis for calculating avoided costs which are used to value the benefits of energy efficiency?</i></p>	<p>Avoided costs shall be based on the most recent three-year historical average of locational marginal pricing (LMP) and avoided capacity costs based on the cost of a new peaking plant.</p>	<p>The Commission's January, 13 2012 Order (PSC reference # 158228) requires avoided energy costs to be based on long-term electricity price forecasts.</p>
<p><i>2) What is the appropriate discount rate to use for benefit/cost modeling?</i></p>	<p>A real discount rate of 2 percent shall be used for the benefit/cost modeling of energy efficiency programs.</p>	
<p><i>3) How should carbon be valued over time?</i></p>	<p>A levelized carbon value of \$30 per ton shall be used in the benefit/cost modeling of energy efficiency programs.</p>	

Question	Commission Decision	Revised/Updated Decision
<p>4) <i>How should the cost-effectiveness of renewable resources be evaluated?</i></p>	<p>The cost-effectiveness of customer-sited renewable resource measures and programs shall be determined in the same manner as energy efficiency measures and programs. Public policy shall dictate the extent to which renewable resource measures that are not cost-effective should be included in the portfolio of programs in order to meet public policy objectives. Commission staff was asked to develop criteria, for Commission approval, to guide decisions about whether to incorporate additional renewable resource measures that do not pass the modified TRC test into Focus on Energy's portfolio of statewide programs.</p>	<p>The Commission's October 27, 2011 Order established the criteria (see PSC reference # 155515) to be used to guide decisions regarding the incorporation of renewable resource measures in the portfolio of Focus on Energy programs. The Program Administrator was required to work with Commission staff to score, based on these criteria, renewable resource measures not passing the Total Resource Cost test and to propose which of these renewable resource measures to include in the Focus on Energy programs and a budget to capture these resources.</p> <p>On April 4, 2012, the Program Administrator submitted its <i>"Focus on Energy Renewable Energy Technology Evaluation."</i> The report provided an analysis of renewable resource technologies to determine which are suitable for implementation in Wisconsin. At its open meeting of April 13, 2012, the Commission considered the appropriate mix and funding level of renewable resource measures in the Focus on Energy program portfolio.</p> <p>The Commission's April 26, 2013 Order specified that annual renewable resource incentive funding level for each of 2012, 2013, and 2014 is not to exceed \$10 million. Because \$7.9 million in renewable resource incentives will be paid out in 2012 for previously approved projects, no further restrictions need to be placed on 2012 renewable resource projects. For 2013 and 2014, the renewable resource incentives are</p>

		required to be allocated 75 percent to biomass, biogas, and geothermal technologies, and 25 percent of the incentives shall be allocated to solar thermal, photovoltaic, and wind technologies. Additionally, the \$10 million renewable resource incentive funding level is contingent upon maintaining a Focus on Energy program portfolio benefit-to-cost ratio of at least 2.3 and a reduction in energy savings of the portfolio of programs due to the inclusion of renewable resource measures of no more than 7.5 percent (PSC Reference # 163778.)
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Phase 2 – Goals and Budget

Question	Commission Decision	Revised/Updated Decision
1. <i>How should projected load be determined?</i>	The base level is the average of historical sales over the most recent three years. Projected natural gas sales, for each of the four planning years shall equal the average base year sales. In 2011 the projected electric energy sales shall equal the average base year sales times a growth rate of 1.0 percent; for subsequent years, the 1.0 percent annual growth rate shall be applied to the prior year's projected electric energy sales. For peak demand forecasts, set a base level that is the average of historical coincident peak demand over the most recent three years. In 2011, the projected peak demand shall equal the base level times a growth rate of 1.5 percent; for subsequent years, the 1.5 percent annual growth rate shall be applied to the prior year's projected peak demand.	This decision is no longer relevant since the Commission's January 13, 2012 Order (PSC reference # 158228) specified that goals are to be based on therms, kWh, and kW reductions.

Question	Commission Decision	Revised/Updated Decision
2. <i>How should annual targets be established?</i>	Future annual targets are to be set as a percent reduction in energy usage and peak load in addition to expressing the targets in actual kW, kWh and therms. It is also reasonable to increase annual targets over time instead of using the same targets in each year of the quadrennial planning period.	
3. <i>Of the overall funding level, how much should be allocated for the statewide programs and how much for voluntary utility programs?</i>	Voluntary utility program budgets shall be kept separate from statewide program budgets. The overall funding level applies only to statewide energy efficiency and renewable resource programs; any funds necessary for voluntary utility programs are incremental to the overall funding level. The approval process in Wis. Admin. Code § PSC 137.08 remains the appropriate means of establishing funding levels for voluntary programs. This is also the appropriate means of allocating voluntary utility budgets between residential, business and renewable resource programs.	
4. <i>How much emphasis should be placed on energy savings rather than demand and how should this be implemented?</i>	The contract between SEERA and the Program Administrator is to emphasize energy savings by establishing energy savings goals that are more aggressive than the demand reduction goals. In addition, the performance bonus mechanism should continue to emphasize energy savings. A bonus that is based 75 percent on energy savings (kWh and therms) and 25 percent on demand, or a contract whose demand goals are reduced by 25 percent, provides the appropriate emphasis on energy savings.	

Question	Commission Decision	Revised/Updated Decision
5. <i>Should the contract goals and annual targets equally emphasize residential and business programs?</i>	Goals and targets should be allocated between the residential and business programs according to the measured potential in each sector. The Program Administrator is in the best position to decide how to allocate the goals and targets, to produce the most cost-effective programs.	
6. <i>How should the Commission prescribe the amount of statewide funds to allocate to the Environmental and Economic Research and Development program (EERD), the renewable resource program, and the business and residential programs?</i>	Annual funding for EERD was increased to \$2 million. It is also reasonable for Commission staff to work with SEERA and set the budget allocation for renewable resource programs, business programs, and residential programs in the Requests For Proposals that SEERA issues.	In its Order dated January 13, 2012 (PSC reference # 158228) the Commission set EERD funding at \$100,000 beginning in 2012 and determined that the focus should be on research that provides benefits to program design and delivery.
7. <i>Should the Commission consider rate impacts and rate mitigation strategies in its decision?</i>	Adopting conservative funding is a significant means of controlling any rate impacts that may be associated with the statewide energy efficiency and renewable resource programs. The Commission will also consider rate pressures on a case-by-case basis when it opens a docketed rate proceeding for each utility. Upon request, the Commission will consider capitalizing a utility's contribution to the statewide programs to mitigate potential rate impacts.	

8. *What are the appropriate goals for energy efficiency and renewable resource programs, and the appropriate funding levels to achieve these goals?*

The Commission adopted the following goals and budgets in November 2010:

Year	Electric Goal (net reduction)	Gas Goal (net reduction)	Budget (million\$)
2011	0.75%	0.50%	\$120
2012	1.0%	0.75%	\$160
2013	1.25%	1.0%	\$204
2014	1.50%	1.0%	\$256
Following years	1.50%	1.0%	\$256

Decision Reconsidered

In June 2011, the legislature passed 2011 Wisconsin Act 32 which repealed the higher funding levels, previously approved by Joint Finance, and returned them to 1.2 percent of operating revenues beginning in 2012. This required a reconsideration of the annual targets and four-year goals. The Commission determined that the four-year goals should reflect annual achievement that is 10 percent higher than the 2009 Focus program and adopted four-year net annual electric savings goals of 1,816,320,000 kWh and net annual natural gas savings goals of 73,040,000 therms. SEERA and the Program Administrator were required to negotiate gross life-cycle four-year contract goals based on the net annual four-year goals adopted by the Commission. Also consistent with the Commission's November 9, 2010 decision, the SEERA/Program Administrator contract should emphasize energy savings by setting more aggressive energy savings goals rather than demand savings goals. Finally, the Commission determined that the negotiated SEERA/Program Administrator contract shall be a performance contract. The performance contract shall set the Commission adopted goals, adjusted to gross life cycle goals, as the minimum level of achievement with an incentive for the Program Administrator to receive higher levels of savings. These goals are shown below:

Year	MWh	Therm (thousands)	MW
2011	6,000,000	288,000	83.77
2012	6,000,000	288,000	83.77
2013	6,000,000	288,000	83.77
2014	6,000,000	288,000	83.77
TOTAL	24,000,000	1,152,000	335.08